

ABSTRACT

In an array speaker system that performs multi-channel reproduction using an array speaker constituted by arraying a plurality of speaker units in a matrix manner, a left channel signal, a right channel signal, and a center channel signal, all of which instruct reproduction of sound at a front side of a listener, are subjected to weighting using weight coefficients based on a Bessel function so as to drive the speaker units, thus realizing spherical sound emission characteristics. In addition, a surround left channel signal and a surround right channel signal, both of which instruct reproduction of sound at a rear side of the listener, are subjected to beam processing, whereby sound is reflected on a sound reflection position such as a wall surface or a ceiling and is then emitted in the form of a sound beam reaching the rear side of the listener.